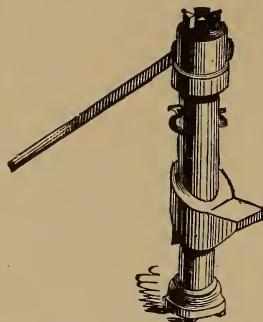
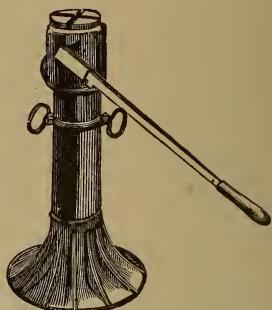


Dudgeon's Hydraulic Jacks.



ALSO

JACKS FOR PRESSING ON
CAR WHEELS AND
CRANK PINS
MADE TO
ORDER.



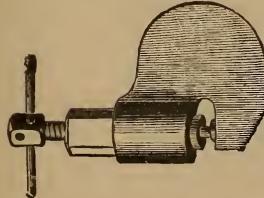
To lift or press	4 tons, and run out 12 inches, and lift from the ground,	.	.	.	\$60 00
" "	4 "	24 "	"	"	65 00
" "	7 "	12 "	.	.	70 00
" "	7 "	24 "	.	.	75 00
" "	7 "	12 "	and lift from the ground,	.	85 00
" "	7 "	12 "	with wide base for locomotive shops,	.	80 00
" "	7 "	18 "	" " " "	.	85 00
" "	7 "	24 "	and lift from the ground,	.	90 00
" "	10 "	12 "	.	.	80 00
" "	10 "	18 "	.	.	100 00
" "	10 "	12 "	and lift from the ground,	.	100 00
" "	10 "	12 "	with wide base for locomotive shops,	.	95 00
" "	10 "	18 "	" " " "	.	110 00
" "	15 "	12 "	.	.	100 00
" "	15 "	12 "	with wide base for locomotive shops,	.	125 00
" "	15 "	12 "	and lift from the ground,	.	150 00
" "	15 "	18 "	with wide base for locomotive shops,	.	150 00
" "	20 "	12 "	and lift from the ground,	.	200 00
" "	20 "	12 "	with wide base for locomotive shops,	.	150 00
" "	20 "	12 "	.	.	120 00
" "	30 "	9 "	.	.	150 00
" "	30 "	12 "	.	.	175 00
" "	30 "	9 "	with wide base for locomotive shops,	.	170 00
" "	30 "	12 "	" " " "	.	200 00
" "	30 "	12 "	and lift from the ground,	.	250 00
" "	60 "	9 "	with cistern and force-pump outside,	.	250 00
" "	60 "	12 "	.	.	275 00
" "	90 "	9 "	with cistern and force-pump outside,	.	350 00
" "	90 "	12 "	.	.	375 00
" "	100 "	12 "	.	.	400 00
" "	120 "	7 "	.	.	450 00

LARGER SIZES MADE TO ORDER.

DIRECTIONS.—This Jack or Press appears to the eye, when depressed, a simple cylinder, and when elevated, as one cylinder sliding within another. It is from two to eight or more inches in diameter, according to the power desired, with an enlarged head, (attached to the inner cylinder, which is the ram,) having a socket for the reception of the lever by which the force-pump is worked. The ram, with its head, contains just so much fluid as is required to fill the vacancy in the cylinder caused by the raising of the ram in the act of lifting; and when this is accomplished, the water is returned into its original recess by a valve operated by the lever that works the pump. The force-pump and valves are contained inside the ram. The lever is detached, and may be put on at pleasure.

The ground lifting attachment is a tube screwed into the lower side of the head, and passing down to the bottom of the press, outside of the cylinder, on the lower end of which is a claw that supports the weight to be raised.

These Jacks are light, portable, and of easy application, a Jack to raise four tons weighing not more than 50 lbs., and one to raise sixty tons, 200 lbs. They are all worked by the labor of one man, who is capable of raising ten tons through a space of one foot in one and a half minutes, or sixty tons the same distance in ten minutes.



DUDGEON'S

PATENT HYDRAULIC PUNCH

For Boiler Makers, Machinists and Iron Ship Building.

The above cut represents one of these Hydraulic Punches, for punching iron, and for other purposes where a limited amount of movement and great power is required. These punches are simple in their construction, being without valves or the force-pump in common use in all other Hydraulic Presses.

The Punch represented by the above cut is for punching through three-eights inch boiler-iron a hole five-eights of an inch in diameter, and will, with one man to work it, do as much work as can be done by two men with a common hand-screw punch, besides being applicable in many places where a screw punch cannot be used.

SIZES AND PRICES.

To punch $\frac{1}{4}$ iron for $\frac{1}{8}$ rivets or bolts,	:	:	:	:	:	:	:	\$ 70 00
To " $\frac{3}{8}$ "	:	:	:	:	:	:	:	80 00
To " $\frac{1}{2}$ "	:	:	:	:	:	:	:	100 00
To " $\frac{1}{2}$ "	:	:	:	:	:	:	:	120 00
To " $\frac{5}{8}$ "	:	:	:	:	:	:	:	150 00
To " $\frac{3}{4}$ "	:	:	:	:	:	:	:	200 00

LARGER ONES MADE TO ORDER.

DIRECTIONS FOR USE.

To fill the Punch, draw the Ram containing the Punch clear up with the lever, take out the screw and fill with good sperm oil, replace the screw and run it in until the iron is punched. Then run back the screw far enough to allow the Ram to be pryed up the thickness of the iron you are punching.